

AMENDMENTS TO THE CLAIMS

None of the claims has been amended. The claims are reproduced here for the Examiner's convenience.

1 1. (Original) A computer-implemented method for reconciling a first
2 transaction in a first list with a combination of at least two transactions in a second
3 list, each transaction having a value, the method comprising:
4 obtaining the first transaction;
5 obtaining the second list of transactions;
6 determining whether the value of the first transaction corresponds to a
7 combination of the values of a subset of transactions in the second list; and
8 responsive to the value corresponding to the combination of values,
9 indicating a match between the first transaction and the subset of
10 transactions.

1 2. (Original) The method of claim 1, wherein each transaction comprises one
2 selected from the group consisting of an investment transaction, a financial
3 transaction, and an accounting transaction.

1 3. (Original) The method of claim 1, wherein determining whether the value
2 of the first transaction corresponds to a combination of the values of a subset of

3 transactions in the second list comprises determining whether the value of the first
4 transaction corresponds to a sum of the values of a subset of transactions in the
5 second list.

1 4. (Original) The method of claim 1, wherein at least one of the steps of
2 obtaining the first transaction and obtaining the second list comprises downloading
3 transactions from a remote server.

1 5. (Original) The method of claim 1, wherein at least one of the steps of
2 obtaining the first list and obtaining the second list comprises retrieving transactions
3 from a storage device.

1 6. (Original) The method of claim 1, further comprising:
2 determining whether the value of the first transaction corresponds to a value
3 of a transaction in the second list; and
4 responsive to the value of the first transaction corresponding to the value of a
5 transaction in the second list, indicating a match between the first
6 transaction and the transaction having the corresponding value;

7 and wherein the step of determining whether the value of the first transaction
8 corresponds to a combination of the values of a subset of transactions in the second
9 list is performed responsive to the value of the first transaction not corresponding to
10 the value of a transaction in the second list.

1 7. (Original) The method of claim 1, wherein each transaction has a date, and
2 wherein obtaining the second list comprises obtaining a list of transactions having
3 dates identical to the date of the first transaction.

1 8. (Original) The method of claim 1, wherein each transaction has a date, and
2 wherein obtaining the second list comprises obtaining a list of transactions having
3 dates within a specified time period of the date of the first transaction.

1 9. (Original) The method of claim 8, further comprising, responsive to the
2 value of the first transaction not corresponding to a combination of the values of a
3 subset of transactions in the second list:
4 modifying the specified time period; and
5 repeating the steps of obtaining the second list, determining whether the
6 value of the first transaction corresponds to a combination of the values of
7 a subset of transactions in the second list, and, responsive to the value
8 corresponding to the combination of values, indicating a match between
9 the first transaction and the subset of transactions.

1 10. (Original) The method of claim 1, wherein determining whether the value
2 of the first transaction corresponds to a combination of the values of a subset of
3 transactions in the second list comprises performing a recursive submethod using a

4 first input parameter including the value of the first transaction and a second input
5 parameter including the set of transactions in the second list.

1 11. (Previously presented) The method of claim 10, wherein performing the
2 recursive submethod comprises:

3 responsive to one of the values of a transaction in the second input parameter
4 equaling the first input parameter, returning a transaction list including
5 the transaction having the equal value;

6 responsive to none of the values of transactions in the second input
7 parameter equaling the first input parameter, and the second parameter
8 containing only one transaction, returning an indicator that no match was
9 found;

10 responsive to none of the values of transactions in the second input
11 parameter equaling the first input parameter, and the second parameter
12 containing more than one transaction, performing the recursive
13 submethod using a modified first input parameter and a modified second
14 input parameter, the modified second input parameter omitting a selected
15 transaction and the modified first input parameter being obtained by
16 subtracting the value of the selected transaction from the first input
17 parameter.

1 12. (Original) The method of claim 10, wherein performing the recursive
2 submethod comprises:
3 responsive to one of the values of a transaction in the second input parameter
4 equaling the first input parameter, returning a transaction list including
5 the transaction having the equal value;
6 responsive to none of the values of transactions in the second input
7 parameter equaling the first input parameter, and the second parameter
8 containing only one transaction, returning an indicator that no match was
9 found;
10 responsive to none of the values of transactions in the second input
11 parameter equaling the first input parameter, and the second parameter
12 containing more than one transaction, performing the steps of:
13 a) selecting a transaction in the second input parameter;
14 b) subtracting the value of the selected transaction from the first
15 input parameter to obtain a modified first input parameter;
16 c) generating a modified set of transactions including all
17 transactions in the second input parameter except the selected
18 transaction;
19 d) performing the recursive submethod using a first input
20 parameter including the modified first input parameter and a

21 second input parameter including the modified set of
22 transactions;

23 e) responsive to the recursive submethod returning a transaction
24 list, adding the selected transaction to the returned list to
25 generate a modified transaction list, and returning the modified
26 transaction list;

27 f) responsive to the recursive submethod returning an indicator
28 that no match was found, performing the steps of:
29 responsive to any transactions remaining in the
30 second input parameter, repeating steps a)
31 through f); and
32 responsive to no transactions remaining in the
33 second input parameter, returning an indicator
34 that no match was found.

1 13. (Original) The method of claim 1, further comprising repeating the
2 obtaining, determining, and indicating steps for a second transaction in the first list.

1 14. (Original) A computer-implemented method for reconciling a first
2 combination of at least two transactions in a first list with a second combination of at
3 least two transactions in a second list, each transaction having a value, the method
4 comprising:

5 obtaining each transaction in the first combination;
6 combining the obtained transactions to generate a first value;
7 obtaining the second list of transactions;
8 determining whether the first value corresponds to a combination of the
9 values of a subset of transactions in the second list; and
10 responsive to the first value corresponding to the combination of values,
11 indicating a match between the first combination and the subset of
12 transactions.

1 15. (Original) A computer-implemented method for matching a first value
2 with a combination of at least two values in a list of values, the method comprising:
3 obtaining the first value;
4 obtaining the second list of values;
5 performing a submethod, using a first input parameter including the first
6 value and a second input parameter including the second list of values, to
7 determine whether the first value corresponds to a combination of values
8 from the second list; and
9 responsive to the first value corresponding to the combination of values,
10 indicating a match for the first value.

1 16. (Previously presented) The method of claim 15, wherein the submethod is
2 recursive, and wherein performing the recursive submethod comprises:

3 responsive to one of the values in the second input parameter equaling the
4 first input parameter, returning a value list including the equal value;
5 responsive to none of the values in the second input parameter equaling the
6 first input parameter, and the second parameter containing only one
7 value, returning an indicator that no match was found;
8 responsive to none of the values in the second input parameter equaling the
9 first input parameter, and the second parameter containing more than one
10 value, performing the recursive submethod using a modified first input
11 parameter and a modified second input parameter, the modified second
12 input parameter omitting a selected value and the modified first input
13 parameter being obtained by subtracting the selected value from the first
14 input parameter.

1 17. (Original) The method of claim 15, wherein the submethod is recursive,
2 and wherein performing the recursive submethod comprises:
3 responsive to one of the values in the second input parameter equaling the
4 first input parameter, returning a value list including the equal value;
5 responsive to none of the values in the second input parameter equaling the
6 first input parameter, and the second parameter containing only one
7 value, returning an indicator that no match was found;

8 responsive to none of the values in the second input parameter equaling the
9 first input parameter, and the second parameter containing more than one
10 value, performing the steps of:

- 11 a) selecting a value in the second input parameter;
- 12 b) subtracting the selected value from the first input parameter to
13 obtain a modified first input parameter;
- 14 c) generating a modified value list including all values in the
15 second input parameter except the selected value;
- 16 d) performing the recursive submethod using a first input
17 parameter including the modified first input parameter and a
18 second input parameter including the modified value list;
- 19 e) responsive to the recursive submethod returning a value list,
20 adding the selected value to the returned list to generate a
21 modified value list, and returning the modified value list;
- 22 f) responsive to the recursive submethod returning an indicator
23 that no match was found, performing the steps of:

24 responsive to any values remaining in the second
25 input parameter, repeating steps a) through f);

26 and

27 responsive to no values remaining in the second
28 input parameter, returning an indicator that no
29 match was found.

1 18. (Original) The method of claim 15, wherein each value is associated with
2 a transaction.

1 19. (Original) The method of claim 15, wherein the submethod determines
2 whether the first value corresponds to a combination of values from the second list.

1 20. (Original) A computer-implemented method for matching a first
2 combination of at least two values with a second combination of at least two values
3 in a list of values, the method comprising:

4 obtaining each value in the first combination;
5 combining the obtained values to generate a first combined value;
6 obtaining the second list of values;
7 performing a recursive submethod, using a first input parameter including
8 the first combined value and a second input parameter including the
9 second list of values, to determine whether the first combined value
10 corresponds to a second combination of values from the second list; and
11 responsive to the first combined value corresponding to the second
12 combination of values, indicating a match for each value in the first
13 combination.

1 21. (Original) A computer program product comprising a computer-readable
2 medium having computer-readable code embodied therein for reconciling a first

3 transaction in a first list with a combination of at least two transactions in a second
4 list, each transaction having a value, comprising:
5 computer-readable program code devices configured to cause a computer to
6 obtain the first transaction;
7 computer-readable program code devices configured to cause a computer to
8 obtain the second list of transactions;
9 computer-readable program code devices configured to cause a computer to
10 determine whether the value of the first transaction corresponds to a
11 combination of the values of a subset of transactions in the second list; and
12 computer-readable program code devices configured to cause a computer to,
13 responsive to the value corresponding to the combination of values,
14 indicate a match between the first transaction and the subset of
15 transactions.

1 22. (Original) The computer program product of claim 21, wherein each
2 transaction comprises one selected from the group consisting of an investment
3 transaction, a financial transaction, and an accounting transaction.

1 23. (Original) The computer program product of claim 21, wherein the
2 computer-readable program code devices configured to cause a computer to
3 determine whether the value of the first transaction corresponds to a combination of
4 the values of a subset of transactions in the second list comprise computer-readable

5 program code devices configured to cause a computer to determine whether the
6 value of the first transaction corresponds to a sum of the values of a subset of
7 transactions in the second list.

1 24. (Original) The computer program product of claim 21, wherein at least
2 one of the computer-readable program code devices configured to cause a computer
3 to obtain the first transaction and the computer-readable program code devices
4 configured to cause a computer to obtain the second list comprises computer-
5 readable program code devices configured to cause a computer to download
6 transactions from a remote server.

1 25. (Original) The computer program product of claim 21, wherein at least
2 one of the computer-readable program code devices configured to cause a computer
3 to obtain the first transaction and the computer-readable program code devices
4 configured to cause a computer to obtain the second list comprises computer-
5 readable program code devices configured to cause a computer to retrieve
6 transactions from a storage device.

1 26. (Original) The computer program product of claim 21, further
2 comprising:
3 computer-readable program code devices configured to cause a computer to
4 determine whether the value of the first transaction corresponds to a value
5 of a transaction in the second list; and

6 computer-readable program code devices configured to cause a computer to,
7 responsive to the value of the first transaction corresponding to the value
8 of a transaction in the second list, indicate a match between the first
9 transaction and the transaction having the corresponding value;

10 and wherein the computer-readable program code devices configured to
11 cause a computer to determine whether the value of the first transaction
12 corresponds to a combination of the values of a subset of transactions in the second
13 list are configured to operate responsive to the value of the first transaction not
14 corresponding to the value of a transaction in the second list.

1 27. (Original) The computer program product of claim 21, wherein each
2 transaction has a date, and wherein the computer-readable program code devices
3 configured to cause a computer to obtain the second list comprise computer-
4 readable program code devices configured to cause a computer to obtain a list of
5 transactions having dates identical to the date of the first transaction.

1 28. (Original) The computer program product of claim 21, wherein each
2 transaction has a date, and wherein the computer-readable program code devices
3 configured to cause a computer to obtain the second list comprise computer-
4 readable program code devices configured to cause a computer to obtain a list of
5 transactions having dates within a specified time period of the date of the first
6 transaction.

1 29. (Original) The computer program product of claim 28, further comprising
2 computer-readable program code devices configured to cause a computer to,
3 responsive to the value of the first transaction not corresponding to a combination of
4 the values of a subset of transactions in the second list:
5 modify the specified time period; and
6 repeat the steps of obtaining the second list, determine whether the value of
7 the first transaction corresponds to a combination of the values of a subset
8 of transactions in the second list, and, responsive to the value
9 corresponding to the combination of values, indicate a match between the
10 first transaction and the subset of transactions.

1 30. (Original) The computer program product of claim 21, wherein the
2 computer-readable program code devices configured to cause a computer to
3 determine whether the value of the first transaction corresponds to a combination of
4 the values of a subset of transactions in the second list comprise computer-readable
5 program code devices configured to cause a computer to perform a recursive
6 submethod using a first input parameter including the value of the first transaction
7 and a second input parameter including the set of transactions in the second list.

1 31. (Previously presented) The computer program product of claim 30,
2 wherein the computer-readable program code devices configured to cause a com-

3 puter to perform the recursive submethod comprise computer-readable program
4 code devices configured to cause a computer to:
5 responsive to one of the values of a transaction in the second input parameter
6 equaling the first input parameter, return a transaction list including the
7 transaction having the equal value;
8 responsive to none of the values of transactions in the second input
9 parameter equaling the first input parameter, and the second parameter
10 containing only one transaction, return an indicator that no match was
11 found;
12 responsive to none of the values of transactions in the second input
13 parameter equaling the first input parameter, and the second parameter
14 containing more than one transaction, perform the recursive submethod
15 using a modified first input parameter and a modified second input
16 parameter, the modified second input parameter omitting a selected
17 transaction and the modified first input parameter being obtained by
18 subtracting the value of the selected transaction from the first input
19 parameter.

1 32. (Original) The computer program product of claim 30, wherein the
2 computer-readable program code devices configured to cause a computer to
3 perform the recursive submethod comprise computer-readable program code
4 devices configured to cause a computer to:

5 responsive to one of the values of a transaction in the second input parameter
6 equaling the first input parameter, return a transaction list including the
7 transaction having the equal value;
8 responsive to none of the values of transactions in the second input
9 parameter equaling the first input parameter, and the second parameter
10 containing only one transaction, return an indicator that no match was
11 found;
12 responsive to none of the values of transactions in the second input
13 parameter equaling the first input parameter, and the second parameter
14 containing more than one transaction, perform the steps of:
15 a) selecting a transaction in the second input parameter;
16 b) subtracting the value of the selected transaction from the first
17 input parameter to obtain a modified first input parameter;
18 c) generating a modified set of transactions including all
19 transactions in the second input parameter except the selected
20 transaction;
21 d) performing the recursive submethod using a first input
22 parameter including the modified first input parameter and a
23 second input parameter including the modified set of
24 transactions;
25 e) responsive to the recursive submethod returning a transaction
26 list, adding the selected transaction to the returned list to

27 generate a modified transaction list, and returning the modified
28 transaction list;

29 f) responsive to the recursive submethod returning an indicator
30 that no match was found, performing the steps of:

31 responsive to any transactions remaining in the
32 second input parameter, repeating steps a)
33 through f); and

34 responsive to no transactions remaining in the
35 second input parameter, returning an indicator
36 that no match was found.

1 33. (Original) A computer program product comprising a computer-readable
2 medium having computer-readable code embodied therein for reconciling a first
3 combination of at least two transactions in a first list with a second combination of at
4 least two transactions in a second list, each transaction having a value, the computer
5 program product comprising:
6 computer-readable program code devices configured to cause a computer to
7 obtain each transaction in the first combination;
8 computer-readable program code devices configured to cause a computer to
9 combine the obtained transactions to generate a first value;
10 computer-readable program code devices configured to cause a computer to
11 obtain the second list of transactions;

12 computer-readable program code devices configured to cause a computer to
13 determine whether the first value corresponds to a combination of the
14 values of a subset of transactions in the second list; and
15 computer-readable program code devices configured to cause a computer to,
16 responsive to the first value corresponding to the combination of values,
17 indicate a match between the first combination and the subset of
18 transactions.

1 34. (Original) A computer program product comprising a computer-usuable
2 medium having computer-readable code embodied therein for matching a first
3 value with a combination of at least two values in a list of values, the computer
4 program product comprising:

5 computer-readable program code devices configured to cause a computer to
6 obtain the first value;
7 computer-readable program code devices configured to cause a computer to
8 obtain the second list of values;
9 computer-readable program code devices configured to cause a computer to
10 perform a submethod, using a first input parameter including the first
11 value and a second input parameter including the second list of values, to
12 determine whether the first value corresponds to a combination of values
13 from the second list; and

14 computer-readable program code devices configured to cause a computer to,
15 responsive to the first value corresponding to the combination of values,
16 indicate a match for the first value.

1 35. (Previously presented) The computer program product of claim 34,
2 wherein the submethod is recursive, and wherein the computer-readable program
3 code devices configured to cause a computer to perform the recursive submethod
4 comprise computer-readable program code devices configured to cause a computer
5 to:

6 responsive to one of the values in the second input parameter equaling the
7 first input parameter, return a value list including the equal value;
8 responsive to none of the values in the second input parameter equaling the
9 first input parameter, and the second parameter containing only one
10 value, return an indicator that no match was found;
11 responsive to none of the values in the second input parameter equaling the
12 first input parameter, and the second parameter containing more than one
13 value, perform the recursive submethod using a modified first input
14 parameter and a modified second input parameter, the modified second
15 input parameter omitting a selected value and the modified first input
16 parameter being obtained by subtracting the selected value from the first
17 input parameter.

1 36. (Original) The computer program product of claim 34, wherein the
2 submethod is recursive, and wherein the computer-readable program code devices
3 configured to cause a computer to perform the recursive submethod comprise
4 computer-readable program code devices configured to cause a computer to:
5 responsive to one of the values in the second input parameter equaling the
6 first input parameter, return a value list including the equal value;
7 responsive to none of the values in the second input parameter equaling the
8 first input parameter, and the second parameter containing only one
9 value, return an indicator that no match was found;
10 responsive to none of the values in the second input parameter equaling the
11 first input parameter, and the second parameter containing more than one
12 value, perform the steps of:
13 a) selecting a value in the second input parameter;
14 b) subtracting the selected value from the first input parameter to
15 obtain a modified first input parameter;
16 c) generating a modified value list including all values in the
17 second input parameter except the selected value;
18 d) performing the recursive submethod using a first input
19 parameter including the modified first input parameter and a
20 second input parameter including the modified value list;

e) responsive to the recursive submethod returning a value list,

adding the selected value to the returned list to generate a

modified value list, and returning the modified value list;

f) responsive to the recursive submethod returning an indicator

that no match was found, performing the steps of:

responsive to any values remaining in the second

input parameter, repeating steps a) through f);

and

responsive to no values remaining in the second

input parameter, returning an indicator that no

match was found.

37. (Original) The computer program product of claim 34, wherein each

2 value is associated with a transaction.

38. (Original) The computer program product of claim 34, wherein the

2 computer-readable program code devices configured to cause a computer to

3 perform the submethod further comprise computer-readable program code devices

4 configured to cause a computer to determine whether the first value corresponds to

5 a combination of values from the second list.

1 39. (Original) A computer program product comprising a computer-usuable

2 medium having computer-readable code embodied therein for matching a first

3 combination of at least two values with a second combination of at least two values
4 in a list of values, the computer program product comprising:
5 computer-readable program code devices configured to cause a computer to
6 obtain each value in the first combination;
7 computer-readable program code devices configured to cause a computer to
8 combine the obtained values to generate a first combined value;
9 computer-readable program code devices configured to cause a computer to
10 obtain the second list of values;
11 computer-readable program code devices configured to cause a computer to
12 perform a recursive submethod, using a first input parameter including
13 the first combined value and a second input parameter including the
14 second list of values, to determine whether the first combined value
15 corresponds to a second combination of values from the second list; and
16 computer-readable program code devices configured to cause a computer to,
17 responsive to the first combined value corresponding to the second
18 combination of values, indicate a match for each value in the first
19 combination.

1 40. (Original) A system for reconciling a first transaction in a first list with a
2 combination of at least two transactions in a second list, each transaction having a
3 value, the system comprising:
4 a first input device, for obtaining the first transaction;

5 a second input device, for obtaining the second list of transactions;
6 coupled to the first and second input devices, a memory for storing the first
7 transaction and the second list;
8 coupled to the memory, a match determination module for determining
9 whether the value of the first transaction corresponds to a combination of
10 the values of a subset of transactions in the second list; and
11 coupled to the match determination module, a match indication module for,
12 responsive to the value corresponding to the combination of values,
13 indicating a match between the first transaction and the subset of
14 transactions.

1 41. (Original) The system of claim 40, wherein each transaction comprises
2 one selected from the group consisting of an investment transaction, a personal
3 financial transaction, and an accounting transaction.

1 42. (Original) The system of claim 40, wherein the match determination
2 module determines whether the value of the first transaction corresponds to a sum
3 of the values of a subset of transactions in the second list.

1 43. (Original) The system of claim 40, further comprising:
2 coupled to the memory, a transaction matching device, for determining
3 whether the value of the first transaction corresponds to a value of a
4 transaction in the second list;

5 wherein the match indication module, responsive to the value of the first
6 transaction corresponding to the value of a transaction in the second list, indicates a
7 match between the first transaction and the transaction having the corresponding
8 value;

9 and wherein the match determination module determines whether the value
10 of the first transaction corresponds to a combination of the values of a subset of
11 transactions in the second list responsive to the value of the first transaction not
12 corresponding to the value of a transaction in the second list.

1 44. (Original) The system of claim 40, wherein each transaction has a date,
2 and wherein the second input device obtains a list of transactions having dates
3 identical to the date of the first transaction.

1 45. (Original) The system of claim 40, wherein each transaction has a date,
2 and wherein the second input device obtains a list of transactions having dates
3 within a specified time period of the date of the first transaction.

1 46. (Original) The system of claim 40, wherein the match determination
2 module performs a recursive submethod using a first input parameter including the
3 value of the first transaction and a second input parameter including the set of
4 transactions in the second list.

1 47. (Previously presented) The system of claim 46, wherein the recursive

2 submethod comprises:

3 responsive to one of the values of a transaction in the second input parameter

4 equaling the first input parameter, returning a transaction list including

5 the transaction having the equal value;

6 responsive to none of the values of transactions in the second input

7 parameter equaling the first input parameter, and the second parameter

8 containing only one transaction, returning an indicator that no match was

9 found;

10 responsive to none of the values of transactions in the second input

11 parameter equaling the first input parameter, and the second parameter

12 containing more than one transaction, performing the recursive

13 submethod using a modified first input parameter and a modified second

14 input parameter, the modified second input parameter omitting a selected

15 transaction and the modified first input parameter being obtained by

16 subtracting the value of the selected transaction from the first input

17 parameter.

1 48. (Original) The system of claim 46, wherein the recursive submethod

2 comprises:

3 responsive to one of the values of a transaction in the second input parameter
4 equaling the first input parameter, returning a transaction list including
5 the transaction having the equal value;
6 responsive to none of the values of transactions in the second input
7 parameter equaling the first input parameter, and the second parameter
8 containing only one transaction, returning an indicator that no match was
9 found;
10 responsive to none of the values of transactions in the second input
11 parameter equaling the first input parameter, and the second parameter
12 containing more than one transaction, performing the steps of:
13 a) selecting a transaction in the second input parameter;
14 b) subtracting the value of the selected transaction from the first
15 input parameter to obtain a modified first input parameter;
16 c) generating a modified set of transactions including all
17 transactions in the second input parameter except the selected
18 transaction;
19 d) performing the recursive submethod using a first input
20 parameter including the modified first input parameter and a
21 second input parameter including the modified set of
22 transactions;
23 e) responsive to the recursive submethod returning a transaction
24 list, adding the selected transaction to the returned list to

25 generate a modified transaction list, and returning the modified
26 transaction list;

27 f) responsive to the recursive submethod returning an indicator
28 that no match was found, performing the steps of:
29 responsive to any transactions remaining in the
30 second input parameter, repeating steps a)
31 through f); and
32 responsive to no transactions remaining in the
33 second input parameter, returning an indicator
34 that no match was found.

1 49. (Original) A system for reconciling a first combination of at least two
2 transactions in a first list with a second combination of at least two transactions in a
3 second list, each transaction having a value, the system comprising:
4 a first input device, for obtaining each transaction in the first combination;
5 coupled to the first input device, a combination module, for combining the
6 obtained transactions to generate a first value;
7 a second input device, for obtaining the second list of transactions;
8 coupled to the combination module and the second input devices, a memory
9 for storing the first value and the second list;

10 coupled to the memory, a match determination module for determining
11 whether the first value corresponds to a combination of the values of a
12 subset of transactions in the second list; and
13 coupled to the match determination module, a match indication module for,
14 responsive to the first value corresponding to the combination of values,
15 indicating a match between the first combination and the subset of
16 transactions.

1 50. (Original) A system for matching a first value with a combination of at
2 least two values in a list of values, the system comprising:
3 a first input device, for obtaining the first value;
4 a second input device, for obtaining the second list of values;
5 coupled to the input devices, a memory for storing the first value and the
6 second list;
7 coupled to the memory, a recursive function module, for performing a
8 recursive function, using a first input parameter including the first value
9 and a second input parameter including the second list of values, to
10 determine whether the first value corresponds to a combination of values
11 from the second list; and
12 coupled to the recursive function module, a match indicator for, responsive to
13 the first value corresponding to the combination of values, indicating a
14 match for the first value.

1 51. (Previously presented) The system of claim 50, wherein the recursive
2 function module:
3 responsive to one of the values in the second input parameter equaling the
4 first input parameter, returns a value list including the equal value;
5 responsive to none of the values in the second input parameter equaling the
6 first input parameter, and the second parameter containing only one
7 value, returns an indicator that no match was found;
8 responsive to none of the values in the second input parameter equaling the
9 first input parameter, and the second parameter containing more than one
10 value, performs the recursive submethod using a modified first input
11 parameter and a modified second input parameter, the modified second
12 input parameter omitting a selected value and the modified first input
13 parameter being obtained by subtracting the selected value from the first
14 input parameter.

1 52. (Original) The system of claim 50, wherein the recursive function module:
2 responsive to one of the values in the second input parameter equaling the
3 first input parameter, returns a value list including the equal value;
4 responsive to none of the values in the second input parameter equaling the
5 first input parameter, and the second parameter containing only one
6 value, returns an indicator that no match was found;

7 responsive to none of the values in the second input parameter equaling the
8 first input parameter, and the second parameter containing more than one
9 value, performs the steps of:

- 10 a) selecting a value in the second input parameter;
- 11 b) subtracting the selected value from the first input parameter to
12 obtain a modified first input parameter;
- 13 c) generating a modified value list including all values in the
14 second input parameter except the selected value;
- 15 d) performing the recursive submethod using a first input
16 parameter including the modified first input parameter and a
17 second input parameter including the modified value list;
- 18 e) responsive to the recursive submethod returning a value list,
19 adding the selected value to the returned list to generate a
20 modified value list, and returning the modified value list;
- 21 f) responsive to the recursive submethod returning an indicator
22 that no match was found, performing the steps of:

23 responsive to any values remaining in the second
24 input parameter, repeating steps a) through f);

25 and

26 responsive to no values remaining in the second
27 input parameter, returning an indicator that no
28 match was found.

1 53. (Original) The system of claim 50, wherein each value is associated with a
2 transaction.

1 54. (Original) A system for matching a first combination of at least two
2 values with a second combination of at least two values in a list of values, the system
3 comprising:

4 a first input device, for obtaining each value in the first combination;
5 coupled to the first input device, a combination module, for combining the
6 obtained values to generate a first combined value;
7 a second input device, for obtaining the second list of values;
8 coupled to the combination module and the second input devices, a memory
9 for storing the first value and the second list;
10 coupled to the memory, a recursive function module, for performing a
11 recursive function, using a first input parameter including the first
12 combined value and a second input parameter including the second list of
13 values, to determine whether the first combined value corresponds to a
14 second combination of values from the second list; and
15 coupled to the recursive function module, a match indicator for, responsive to
16 the first combined value corresponding to the second combination of
17 values, indicating a match for each value in the first combination.